

# Guest Column

# On CBW

By Andy Smith

An opinion was expressed in Friday's Daily by Gary Alderman that chemical and biological warfare (CBW) research should be supported, on the grounds that it offers a more humane means of combat than do conventional weapons. While it is true that a war waged with chemical or biological agents could be less brutal than traditional military encounters have been, there are nevertheless some very important reasons for opposing CBW research at Stanford, at SRI, and at anywhere else in this country or in the more than a dozen other nations engaging in it.

Since Alderman was specifically trying to avoid the issue of the morality of war, I will not consider the opposition to CBW research on the grounds that it is one more means by which war or its threat is perpetuated, although I consider such an objection valid. There are in fact many other reasons for opposing CBW, arguments which I feel should be compelling to people of all political persuasions.

It should be noted first of all that much CBW research is not concerned with incapacitating agents. Nerve gas kills. Anthrax kills. If these agents are not going to be used by the U.S., why does it make and store them? And if they are merely on hand as deterrents, then why are they publicized so much less than are other weapons, such as nuclear warheads?

CBW poses perhaps the greatest threat of any type of weapon to non-combatants. This threat looms on two fronts. On one front, there is the danger to civilians residing in a country which is engaging in CBW research. Two examples occurring in this country suffice to make the point: (a) Thousands of sheep died in Utah last year as a result

of a nerve gas accident traced to Dugway Proving Grounds, an Army CBW installation. Only the particular weather conditions present at the time prevented exposure of this highly lethal chemical to people in nearby communities. (b) Several thousand cases of viral infections resulting from laboratory accidents have been recorded in this country, many the result of CBW research. An infected but unknowing scientist might start a community epidemic as a result of such a mishap.

On the second front, there is the danger to the civilian population in a country in which CBW is being used. The dispersal of CBW agents is often highly dependent on ambient weather conditions, so that a sudden change in wind direction, for example, could result in a mass exposure of the agent to civilians, while leaving the enemy unharmed. Another example can be seen today in Vietnam, where current crop destruction programs take their greatest toll in the civilian ranks, rather than in those of the healthy fighting men who are better able to withstand deprivation.

There are many possible long-range effects of CBW, which either cannot be predicted in advance, or which might be ignored by the military in the interest of expediency. An island which was exposed to anthrax during World War II is still uninhabitable today. Defoliating agents used in Vietnam may result in permanent environmental unbalances which were not foreseen when these agents were tested in a non-tropical setting.

Perhaps the most frightening aspect of CBW is that effective defenses to it do not exist. When one recalls the little effect forewarning of the arrival of Hong Kong Flu in this country had on the eventual epidemic, it should be apparent that we are in real trouble if a virus gets loose which a) is lethal, b) is resistant to common antibiotics, c) results in atypical symptoms, d) is spread over wide areas of the country, perhaps by living vectors, such as insects, and e) is sent without forewarning.

Anyone who really thinks that CBW can usher in an age of "humane warfare" should remember that chemical and biological agents were originally developed for the same reason that all other weapons advances have been made—military one-up-manship. The American build-up began when it became clear that other countries had started such research. The military will use CBW for what it considers its best tactical advantage, and not for any moral purpose.

There is no evidence to suggest that a force of fighting men, in the heat of battle, is going to worry too much about how it

overcomes the enemy. If the latter can be driven from a tunnel with tear gas, fine; if so much tear gas is needed that the opposing soldiers are permanently blinded, that will not matter; and if lethal nerve gas must be resorted to, that is also all right.

Alderman's recollection that "the ancient Greeks used a choking fog against the Persians instead of skewering them on pikes" obscures the issue. Fog was used because it was more effective, not because it was more humanitarian. If the Greeks had had nerve gas available, be sure that they would have used it.

(Andy Smith is a grad student in Neurological Sciences—Ed.)